# TONY'S SUPPER CLUB (PWSNO 1280189)
# SOURCE WATER ASSESSMENT REPORT

**March 27, 2001**

## State of Idaho
## Department of Environmental Quality

## Source Water Assessment for Tony's Supper Club

Under the Federal Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. The Idaho Department of Environmental Quality is completing the assessments for all Idaho public drinking water systems. The assessment for your particular drinking water source is based on a land use inventory within a 1,000 foot radius of your drinking water source, sensitivity factors associated with the source and characteristics associated with either the aquifer or the watershed in which you live.

This report, *Source Water Assessment for Tony's Supper Club* describes the public drinking water system, the potential contaminant sources located within a 1000-foot boundary around the drinking water source, and the susceptibility (risk) that may be associated with any associated potential contaminants. This assessment, taken into account with local knowledge and concerns, should be used as a planning tool to develop and implement appropriate protection measures for this system. **The results should <u>not be</u> used as an absolute measure of risk and are not intended to undermine the confidence in your water system.**

Drinking water for Tony's Supper Club comes from a 6 inched cased well drilled in 1988 and deepened from 300 feet to 580 feet in 1994. The well, located in the parking lot on the west side of the club, is about 40 feet from Coeur d'Alene Lake Drive and 100 feet from the lake. There is a septic system on the east side of the building.

The club is required to test monthly for microbial contamination and yearly for nitrates. Total Coliform bacteria were present in samples cultured in October 1996 and October 1997. The October 1996 incident was due to sampling error. Nitrate concentrations increased from undetectable levels in 1997 to 1.40 mg/l in 2000. The Maximum Contaminant Level for nitrate is 10 mg/l.

Based on well construction details, hydrologic sensitivity factors associated with the well site and the potential contaminant inventory within the 1000-foot boundary, the Tony's Supper Club well ranked moderately susceptible to all classes of regulated contamination. The susceptibility analysis worksheet for your system showing the ranking criteria and how your well scored is on pages 5 of this report. A map showing potential contaminant sources is also included. Information regarding potential contaminants inside the 1000-foot boundary shown on the map is summarized on Table 1.

**Table 1. Tony's Supper Club Potential Contaminant Inventory.**

| Map ID | Source Description | Source of Information | Potential Contaminants[1] |
|---|---|---|---|
| 1 | Septic System | Sanitary Survey, PWS file | IOC, Microbial |
| 2 | Fuel Storage Tank | Sanitary Survey, PWS File | VOC, SOC, |
| 3 | Parking Lot, Roads | USGS Map | IOC ,VOC, SOC, Microbial |
| 4 | Surface Water | USGS Map | IOC ,VOC, SOC, Microbial |

***1. IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical***

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For Tony's Supper Club, source water protection activities should focus first on the area immediately around the well. It is important to continue to maintain the sanitary setback zone (50-foot radius surrounding the well) as an area where no potential contaminants are used or stored. The club needs to perform the tests for determining whether the well is directly influenced by surface water (GWUDI).

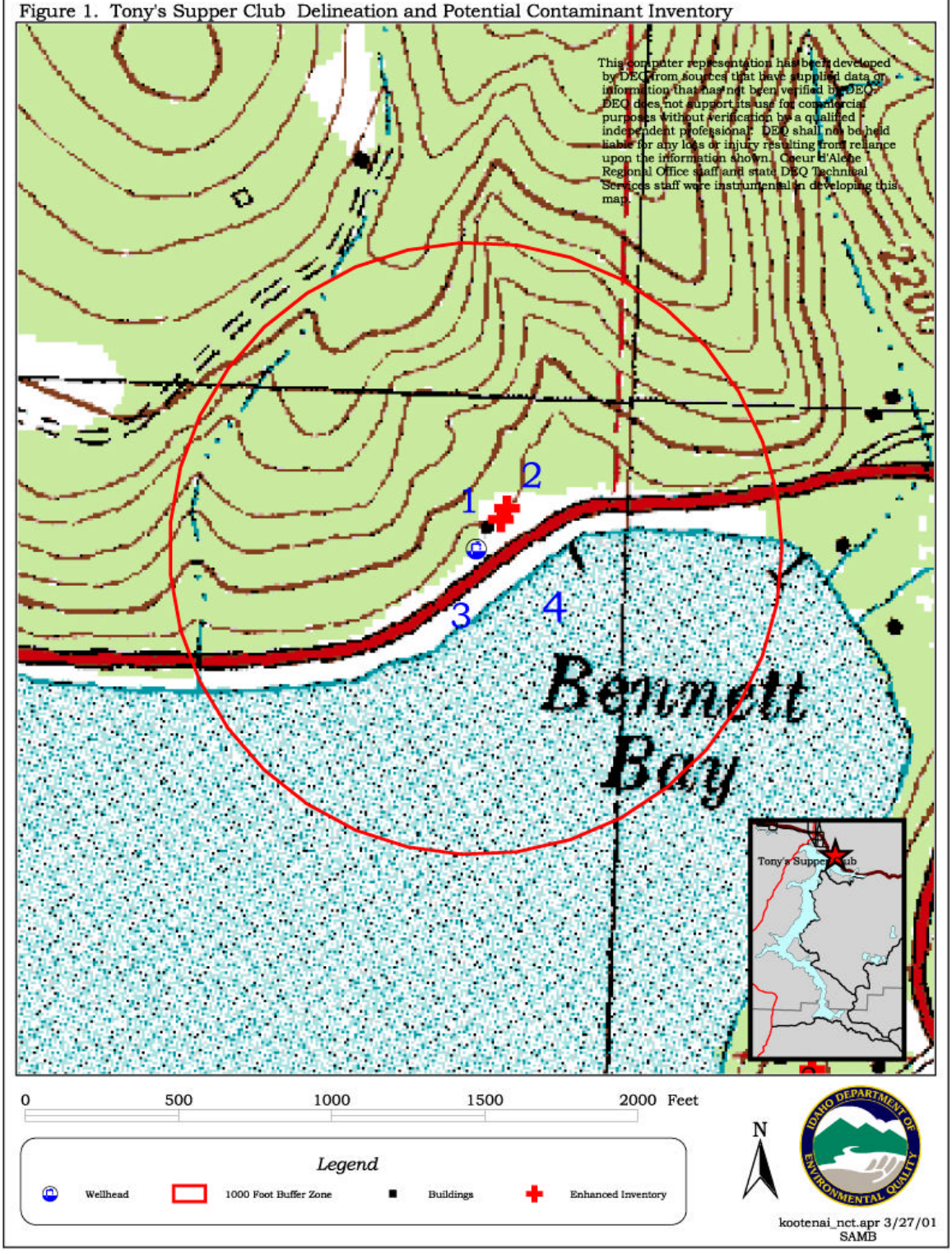
Because Tony's Supper Club doesn't have direct jurisdiction over all the land in the 1000-foot zone shown on the map, it would be a good idea to enlist the cooperation of the highway district to limit the use of road maintenance chemicals in the protection zone. Neighbors should be informed that they live in a well recharge zone, and can be asked to participate in water protection activities like household hazardous chemical collection days, septic tank maintenance workshops and the like. Another activity to consider is periodic inventories of the area delineated around your well to document land use changes, new businesses, roads, houses, and septic systems. The goal of source water protection is to maintain current water quality for the future despite the changes we can expect with population growth in North Idaho.

For assistance in developing source water protection strategies please contact Tony Davis at the Coeur d'Alene Regional DEQ office at 208 769-1422.

**DEQ website:**

hhttp://www.deq.state.id.us

Figure 1. Tony's Supper Club Delineation and Potential Contaminant Inventory



**Ground Water Susceptibility**

Public Water System Name : **TONYS SUPPER CLUB** Well # : **WELL #1**

Public Water System Number : **1280189** 1/25/01 11:37:02 AM

| **1. System Construction** | | SCORE | | | |
|---|---|---|---|---|---|
| Drill Date | 7/20/88 | | | | |
| Driller Log Available | YES | | | | |
| Sanitary Survey (if yes, indicate date of last survey) | YES | 1997 | | | |
| Well meets IDWR construction standards | NO | 1 | | | |
| Wellhead and surface seal maintained | YES | 0 | | | |
| Casing and annular seal extend to low permeability unit | YES | 0 | | | |
| Highest production 100 feet below static water level | YES | 0 | | | |
| Well located outside the 100 year flood plain | YES | 0 | | | |
| ***Total System Construction Score*** | | **1** | | | |
| **2. Hydrologic Sensitivity** | | | | | |
| Soils are poorly to moderately drained | NO | 2 | | | |
| Vadose zone composed of gravel, fractured rock or unknown | NO | 0 | | | |
| Depth to first water > 300 feet | NO | 1 | | | |
| Aquitard present with > 50 feet cumulative thickness | YES | 0 | | | |
| ***Total Hydrologic Score*** | | **3** | | | |
| **3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)** | | IOC Score | VOC Score | SOC Score | Microbial Score |
| Land Use Zone 1A | RANGELAND, WOODLAND, BASALT | 0 | 0 | 0 | 0 |
| Farm chemical use high | NO | 0 | 0 | 0 | |
| IOC, VOC, SOC, or Microbial sources in Zone 1A (Sanitary Setback) | NO | NO | NO | NO | NO |
| ***Total Potential Contaminant Source/Land Use Score - Zone 1A*** | | **0** | **0** | **0** | **0** |
| **Potential Contaminant / Land Use - ZONE 1B (1000 foot radius around well)** | | | | | |
| Contaminant sources present (Number of Sources) | YES | 3 | 3 | 3 | 3 |
| (Score = # Sources X 2 ) 8 Points Maximum | | 6 | 6 | 6 | 6 |
| Sources of Class II or III leacheable contaminants or Microbials | YES | 3 | 3 | 3 | |
| 4 Points Maximum | | 3 | 2 | 2 | |
| Zone 1B contains or intercepts a Group 1 Area | NO | 0 | 0 | 0 | 0 |
| Land use Zone 1B | Less Than 25% Agricultural Land | 0 | 0 | 0 | 0 |
| ***Total Potential Contaminant Source / Land Use Score - Zone 1B (1000 foot radius around well)*** | | **9** | **6** | **6** | **6** |
| **Cumulative Potential Contaminant / Land Use Score** | | **9** | **9** | **9** | **6** |
| **4. Final Susceptibility Source Score** | | **6** | **6** | **6** | **6** |
| **5. Final Well Ranking** | | **Moderate** | **Moderate** | **Moderate** | **Moderate** |

The final scores for the susceptibility analysis were determined using the following formulas:

1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.27)

2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

Final Susceptibility Scoring:

0 - 5 Low Susceptibility

6 - 12 Moderate Susceptibility

> 13 High Susceptibility

# POTENTIAL CONTAMINANT INVENTORY
# LIST OF ACRONYMS AND DEFINITIONS

**AST (Aboveground Storage Tanks) –** Sites with aboveground storage tanks.

**Business Mailing List –** This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

**CERCLIS –** This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund@ is designed to clean up hazardous waste sites that are on the national priority list (NPL).

**Cyanide Site –** DEQ permitted and known historical sites/facilities using cyanide.

**Dairy –** Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

**Deep Injection Well –** Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

**Floodplain –** This is a coverage of the 100year floodplains.

**Group 1 Sites –** These are sites that show elevated levels of contaminants and are not within the priority one areas.

**Inorganic Priority Area –** Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

**Landfill –** Areas of open and closed municipal and non-municipal landfills.

**LUST (Leaking Underground Storage Tank)** – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

**Mines and Quarries** – Mines and quarries permitted through the Idaho Department of Lands.)

**Nitrate Priority Area –** Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

**NPDES (National Pollutant Discharge Elimination System) –** Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

**Organic Priority Areas –** These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point –** This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS –** Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

**SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) –** These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

**Toxic Release Inventory (TRI)** – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

**UST (Underground Storage Tank) –** Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

**Wastewater Land Applications Sites** – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

**Wellheads –** These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.